Project Study Report (Local Rehabilitation) Guidelines For 1998 STIP Projects off the State Highway System

Intent of Guidelines

A new project may not be included in the State Transportation Improvement Program (STIP) without a complete project study report (PSR), or for a project that is not on a State highway, a PSR equivalent. A PSR equivalent will, at a minimum, be adequate to define and justify the project's scope, cost, and schedule to the satisfaction of the regional agency.

The intent of these Guidelines is to provide a format and instructions for a report that regional transportation planning agencies may adopt that will meet the requirements for a PSR to support local system rehabilitation projects. This PSR (Local Rehabilitation) should provide a sound basis for commitment of future State and Federal funding for local rehabilitation projects, but in a format that is simple, timely, and as practical as possible, given that the PSR must be prepared at the front end of the project development process. A regional agency may adopt an equivalent to this format at their option.

The format of this PSR (Local Rehabilitation) is a "fill in the blank" type of report, and is fairly self-explanatory. The following background information is being provided to supplement those sections of the report that require additional guidance for them to be successfully completed.

Background

Purpose of Rehabilitation Projects

The purpose of a rehabilitation project is to preserve and extend the service life of an existing facility. This includes work on structures, placement of additional pavement surfacing and/or other work necessary to return an existing structure or roadway, including shoulders, to a condition of structural or functional adequacy. Pavement rehabilitation strategies should represent the minimum improvement that will extend service life for at least 10 years.

Projects that are intended purely to maintain existing pavement that is structurally sound, including surface treatments (thin blankets, seal coats, etc.) or spot improvements (pothole repair), are not considered rehabilitation.

Developing a rehabilitation project provides the opportunity to include other improvements to enhance safety, restore drainage facilities and/or improve operations. This is an economic decision to be made by the local agency based on the particular needs of the locality.

Geometric Design Standards

As discussed above, the local agency may elect to include cost-effective safety and operational improvements in a rehabilitation project. However, if these include upgrading of geometric features or operation improvement that become a major factor in project costs or impacts, the

work becomes reconstruction and this PSR (Local Rehabilitation) and the design standards described in this section would not be appropriate.

Local Federal-aid projects on the National Highway System (NHS) must meet statewide design standards acceptable to the Federal Highway Administration if the proposed project will change existing roadway geometrics. Rehabilitation projects on the NHS that include upgrading of geometric features must be designed in accordance with "3R" (Resurfacing, Restoration and Rehabilitation) standards described in Caltrans' *Local Assistance Procedures Manual*. (New and reconstruction projects are designed to meet AASHTO standards.)

Projects off the NHS may be designed in accordance with local geometric standards and procedures.

Project Manager Approval

Under the project management approach, responsibility to deliver a quality project on time and within budget is assigned to a single individual, the Project Manager. Typically the Project Manager is responsible for all project development activities from project initiation (or PSR) to start of construction. The local agency shall assign a Project Manager who will approve the PSR (Local Rehabilitation) to signify agreement on the scope, cost, and schedule information proposed for development of the project.

This approval certifies that the report meets the requirements for programming a local rehabilitation project in the STIP. While the project manager may also be the engineer in responsible charge, the project management approval is a management decision and is separate from the technical signature of the registered civil engineer.

Sections of the PSR (Local Rehabilitation) Form

The following instructions will aid in completing the sections of the attached PSR (Local Rehabilitation) form:

1. Transportation Problem

Provide a concise description of the transportation problem addressed by the rehabilitation project (i.e., structurally deficient pavement or structure, unstable slopes, functionally obsolete roadway or bridge hardware, etc.).

2. Route – Location – (Post Mile)

Enter local route number or name of street or road and city, community or other description of location of the work (list post mile if appropriate).

3. Description of Project Limits

Briefly describe the physical limits or nature of project. Attach a list, as needed, for multiple or various locations. Indicate net length of project to nearest one-tenth of kilometer or mile.

4. Description of Project Scope

Describe the type work and the major components of the proposed project (i.e., pavement rehabilitation, structure rehabilitation).

5. Functional Classification/Federal-aid System

Check appropriate functional classification category. All functionally classified highways are eligible for Federal-aid except for those classified as local roads and rural minor collectors. (See Chapter 3 of the *Local Assistance Program Guidelines.)* Proposed rehabilitation projects on systems classified as local or as rural minor collector are eligible for STIP funding. However, programming of projects on non Federal-aid routes shall be limited to availability of State-only funding as determined by the Commission. (A limited amount of Federal funding is available for projects on rural minor collectors and will be available for funding projects, as determined by the Commission.) A listing of the Functional Classification of Streets and Highways is available under Reports and Databases on Caltrans Local Programs Internet Home Page at **www.dot.ca.gov/hq/LocalPrograms**.

Indicate if the project is on the NHS. See Exhibit 3-A in the *Local Assistance Program Guidelines* for a listing of local NHS routes.

6. Environmental Status

Describe the type of environmental document (Federal and State) and the anticipated (or actual) approval date. See Chapter 6 of the *Local Assistance Procedures Manual* for guidance on the Preliminary Environmental Studies (PES) form required for Federal-aid projects. The purpose of the PES is to determine the potential presence of sensitive environmental resources within the project area, identify required technical studies, permits, and coordination with other agencies, and the type of environmental document that will be required. While it is not required that this document be completed as part of the PSR (Local Rehabilitation), it is suggested that the local agency review this form for guidance.

Local agencies should be aware that in compliance with Section 21150 of the Public Resources Code, Commission allocation to local agencies for project costs other than for environmental studies and permits will be made only after documentation of environmental clearance under the California Environmental Quality Act.

Describe potential environmental issues that may impact the project scope, cost and schedule.

7. Traffic Data

Provide an estimate of the current traffic. Rehabilitation projects should normally be designed on the basis of current average daily traffic (ADT) and current peak period design hourly volume (DHV) to extend the structural section service life for a least 10 years. If the project will be designed on the basis of projected future traffic, indicate the estimated ADT and DHV.

8. Roadway Geometric Information

If the proposed geometrics do not meet the design standards described above, provide an explanation. (Refer to Chapter 11, "Design Standards," of the *Local Assistance Procedures Manual* for standards and design exception procedures.)

9. Structure Information

If bridge rehabilitation work is included in the project, the bridge should be widened to meet 3R standards (or local standards for projects off the NHS). If not, provide explanation. (Refer to Chapter 11, "Design Standards," of the *Local Assistance Procedures Manual* for standards and design exception procedures.) If the work will be deferred, indicate funding source. Structural work on bridges on and off the NHS shall be designed in accordance with the current edition of the Caltrans' *Bridge Design Specifications* manual. Deviations from standard relating to "bridge structural capacity" in this manual are not permitted.

If the bridge rehabilitation work is included in this project, attach a report that documents the scope, cost and schedule. (Exhibit 7-D, "Major Structure Data" sheet in Chapter 7 of Caltrans' *Local Assistance Procedures Manual* should be used for Federal-aid projects.) If the cost of bridge work will be funded from a source other than the STIP, identify the funding source (HBRR, Local Seismic, etc.).

10. Condition of Existing Facility

Provide a brief description of the condition of the pavement and/or other existing facility to be improved.

11. Pavement Rehabilitation

The structural section or pavement overlay thickness for Federal-aid projects on the NHS must be designed in accordance with Section 600 of the *Caltrans' Design Manual*, or the *Flexible Pavement Structural Section Design Guide for California Cities and Counties*. State-only funded projects and Federal-aid projects off the NHS may be designed in accordance with design methods or standards developed by the local agency for their own locally funded projects. Included would be rehabilitation strategies recommended by the local agency's Pavement Management System (PMS). Indicate which method was used for the project.

12. Cost Estimate Breakdown

Restoration and rehabilitation projects include other work necessary to return an existing roadway, including shoulders, bridges, drainage facilities, roadside, and appurtenances to a condition of structural and functional adequacy. These projects may also include reworking or strengthening of base materials and upgrading of geometric features and appurtenances for safety purposes. Include a cost breakdown for each of the major elements of the project by providing the information requested.

To minimize future cost increases, a thorough scoping of the project should be completed as part of the project study report and a reliable project cost estimate needs to be prepared. With the timely use of funds provisions implemented by Senate Bill 45, unreliable cost estimates may result in severe problems in local and regional planning project funding. Realistic evaluations as to the final concept, scope, cost and schedule of each project are to be established as early as possible and should be based on the results of a field review. All anticipated work (i.e., safety, restoration, hardware modification, etc.) should be included in the PSR estimate.

Cost estimates for projects proposed for programming in the STIP must list costs separately for each of the four project components: (1) environmental studies and permits; (2) preparation of plans, specifications, and estimates, (3) right of way, and (4) construction. For local projects, the right of way and construction components include the local agency costs for support.

Unless the particulars of a specific case justify use of a different factor, or the regional planning agency specifies otherwise, a 20% contingency factor should be used.

13. Scheduling

Provide the information shown. Use the following milestones:

Project Component	Milestones
Environmental Studies and Permits*	From start of environmental studies to approval of final environmental document (*Note: Some permits may be obtained after approval of final environmental document).
Plans, Specifications, and Estimate	From start of final design (approval of environmental document) to "ready to advertise".
Right of Way Acquisition	From start of right of way acquisition to right of way certification.
Construction	From advertise project to project completion.

14. Other Agencies Involved

Discuss any required permits or involvement with other agencies relating to the proposed work. (See discussion under Section 6, "Environmental Status.")

15. Other Considerations

Discuss other considerations as appropriate. The items listed are a few of the more common items that may impact the scope, cost, and schedule of the completed project. This section should not be limited to the items listed.

16. Proposed Funding

Indicate all sources of funding for the proposed project. If local commitment is from more than one source, attach a complete funding summary.

If any of the committed local funding is from Caltrans' Local Assistance Program (i.e. HBRR, HES, etc.) provide complete project identification, including Federal number, to avoid delays when the local agency's request for funding allocation is submitted. Indicate status of the Local Assistance funding, i.e., "HBRR preliminary engineering funds obligated on dd/mm/yy."

17. List of Attachments

The Vicinity Map and Strip Map may be combined. Include a small map showing the project, consistent with the Route – Location –(Post Mile), and project limits described in the report. Include a north arrow. The map should be sufficient to locate the project at a glance for a person unfamiliar with the project. It should show the features used to identify the project limits such as roads, streams, junctions or railroads, and the nearest town (unless too distant), and a note indicating the direction to and name of the next town in each direction. All printed names on the map should be legible. In addition, if appropriate to understanding the proposed work, pertinent project features may be shown on the Strip Map, separate from the Vicinity map.

18. Report Preparation

The last page of the form contains the required stamp or seal and signature of a registered civil engineer who is the person in responsible charge. The sheet must include a statement indicating that the registered civil engineer attests to the technical information contained herein and the data upon which recommendations, conclusions, and decisions are based. As noted above, approval of the report indicated on the first page is a management decision and is separate from this technical signature of the person in responsible charge.

PROJECT STUDY REPORT
(LOCAL REHABILITATION)
(For 1998 STIP Projects off the State Highway System)

Responsible Agency: _____
Project Name: _____

APPROVED

_____
Project Manager

1. Transportation Problem

_____
_____

2. Route – Location – (Post Mile): _____

3. Description of Project Limits

_____
_____

Net Length _____ kilometers/miles

4. Description of Project Scope

_____
_____

5. Functional Classification/Federal-aid System

Federal-aid Highways

- ☐ Urban Principal Arterial
- ☐ Urban Minor Arterial
- ☐ Urban Collector
- ☐ Rural Principal Arterial
- ☐ Rural Minor Arterial
- ☐ Rural Major Collector

Highways ineligible for Federal-aid

- ☐ Urban Local
- ☐ Rural Minor Collector
- ☐ Rural Local

Federal-aid System
On the National Highway System? Yes___ No___

6. Environmental Status

Environmental Document Type (CEQA)_____ (NEPA) _____
Anticipated Completion Date _____

Environmental Issues:

_____
_____

7. Traffic Data (Estimated)
Current ADT _____
% Trucks _____
Current Design Hourly Volume _____

8. Roadway Geometric Information

Will this project change existing geometrics? Yes _____ No _____
If no, skip this section.

Facility	Minimum Curve Radius	Through Traffic Lanes		Paved Shoulder Width		Median
		No. of Lanes	Lane Width	Left	Right	Width
*Existing						
**Proposed						
Min. 3R or Local Stds.***						

* Enter EXISTING information (Expand as needed, for varied geometrics.)
** Enter PROPOSED information (Expand as needed, for varied geometrics.)
*** Refer to Chapter 11, "Design Standards," of the *Local Assistance Procedures Manual*.

If 3R or local Standards are not being met, briefly explain why:
_____
_____

9. Structure Information

Is bridge rehabilitation work included in this project? Yes _____ No _____
If no, skip this section.
If 3R Standards for bridge width are not being met, briefly explain why:
_____
_____

Funding source of bridge rehabilitation (if not STIP) _____

10. Condition of Existing Facility (Repeat information for each homogeneous segment):
_____
_____

11. Pavement Rehabilitation

Is any work on existing pavement included in this project? Yes _____ No _____
If no, skip this section.

Will the work extend the service life for at least 10 years? Yes _____ No _____
If work will not extend the service life for a least 10 years, briefly explain why:
_____
_____

Structural Section Design method (i.e. *Caltrans Design Manual*, *Flexible Pavement Structural Section Design Guide for California Cities and Counties*, PMS strategy, other, i.e. local procedures.)
_____
_____

What are the consequences of not doing this project?
_____
_____

12. Cost Estimate Breakdown

	Cost
ENVIRONMENTAL STUDIES AND PERMITS	_____
PLANS, SPECIFICATIONS, AND ESTIMATE	_____
RIGHT OF WAY	
Right of Way Acquisition	_____
Right of Way Support	_____
Utility Relocation (exclude if included in construction)	_____
TOTAL RIGHT OF WAY COMPONENT COST	_____
CONSTRUCTION	

Pavement Structural Section Work	Lane-Miles	Cost
AC Overlay	_____	_____
Other AC		_____
Remove & replace localized failed areas		_____
Base materials		_____
Shoulder backing		_____
Other structural section work (Identify)		_____
Hardware Upgrades		
Guardrail		_____
Signals and lighting		_____
Other (describe)		_____
Bridge Upgrades		_____
Grading		
Drainage Rehabilitation		_____
Utility Relocation		_____
Traffic Control		_____
Traffic stripes, pavement markers and markings		
Other (Identify: e.g., Mobilization Cost, Hazardous Waste Mitigation, Force Account, day labor, etc.)		_____
SUBTOTAL		_____
20% Contingency		_____
TOTAL CONSTRUCTION COST		_____
Construction Support		_____
TOTAL CONSTRUCTION COMPONENT COST		_____

13. Scheduling

Project Component	Start Date	Estimated Completion
Environmental Studies and Permits	_____	_____
Plans, Specifications, and Estimate	_____	_____
Right of Way Acquisition	_____	_____
Construction	_____	_____

14. Other Agencies Involved: (Permits/Approvals from Fish & Game, Corps of Engineers, Coastal Commission, etc.)

_____

_____

15. Other Considerations

Utility and/or Railroad Involvement:

_____

_____

Consistency with other planning:

_____

_____

16. Proposed Funding

	Local Commitment	STIP Request	Total
Environmental Studies and Permits			
Plans, Specifications and Estimate			
Right of Way Acquisition (including support)			
Construction (including support)			
Total			

Source(s) of Local Commitment: (Indicate Local Assistance Project Number if appropriate.)

_____

_____

17. List of Attachments

A. Vicinity Map/Strip Map
B. Typical Section(s)
C. PMS Inventory Data (if available)
D. Structural Section Recommendation

18. Report Preparation

Prepared by _____ Date _____

This Project Study Report (Local Rehabilitation) has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

_____ _____

REGISTERED CIVIL ENGINEER *DATE*